

slip 09.04.22

Dart Aerospace Ltd.

Date: Thursday, 05/02/2009 3:31:12 PM  
User: Julie Dawson

### Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : AFT LH DOOR HINGE KIT
<b>Job Number</b> : 45532	
<b>Estimate Number</b> : 13765	
<b>P.O. Number</b> :	<b>Part Number</b> : D130780011
<b>This Issue</b> : 05/02/2009 <b>S.O. No.</b> :	<b>Drawing Number</b> : IIN-D130-780
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : A
<b>Previous Run</b> : 45531	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 28/02/2009 <b>Qty:</b> 1 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : JLD 09.02.09	
<b>Comment</b> : Est Rev:A 09-02-03 new issue DD verified by:JLM	

#### Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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JLD 09/03/16



Comment: DOCUMENT CONTROL ECN 09-541 ADDED

Photocopy bluefile and type labels per PPP D130-780-011 CHG 001

5 09/04/22

2.0	D3813041	Hinge Assembly, Upper Door
-----	----------	----------------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Hinge Assembly, Upper Door  
batch: 45727

SS 09/04/22 (X)

3.0	D3813043	Hinge Assembly, Lower Door
-----	----------	----------------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Hinge Assembly, Lower Door  
batch: 45720

SS 09/04/22 (X)

4.0	D38141	Hinge, Upper Airframe
-----	--------	-----------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Hinge, Upper Airframe  
batch: 45673

SS 09/04/22 (X)

5.0	D38143	Hinge, Lower Airframe
-----	--------	-----------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Hinge, Lower Airframe  
batch: 45674

SS 09/04/22 (X)

56 S 1 x D3892-1 B 45673

per ECN 09-541

SS 09/04/22 (X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 05/02/2009 3:31:12 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT LH DOOR HINGE KIT

Job Number: 45532

Part Number: D130780011

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D38161

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Spacer

batch:

B45675

SS 09/04/22 (X)

7.0

D38163

Spacer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Spacer

batch:

B45676

SS 09/04/22 (X)

8.0

D3817041

Anchor Nut Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Anchor Nut Plate

batch:

43730

SS 09/04/22 (X)

9.0

AN35A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

batch:

M100188

SS 09/04/22 (X)

10.0

AN37A

Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total: 3.0000 Each(s)

Bolt

batch:

110704

SS 09/04/22 (X)

11.0

AN3104

NUT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

NUT

batch:

M111060

SS 09/04/22 (X)

12.0

AN417

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

batch:

~~M111060~~ M111499

SS 09/04/22 (X)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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## Process Sheet

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Drawing Name: AFT LH DOOR HINGE KIT

Job Number: 45532

Part Number: D130780011

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

AN9704

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

batch:

M 110704

SS 09/04/22 (X1)

14.0

MS21042L3

Nut



Comment: Qty.: 5.0000 Each(s)/Unit Total : 5.0000 Each(s)

Nut

batch:

M 110844

SS 09/04/22 (X1)

15.0

MS24665212

Cotter Pin



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Cotter Pin

batch:

M 111499

SS 09/04/22 (X1)

16.0

MS24694S46

Screw



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Screw

batch:

M 111499

SS 09/04/22 (X1)

17.0

NAS1149D0363J

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Washer

batch:

M 110985

SS 09/04/22 (X1)

18.0

NAS1149D0463J

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

batch:

M 110363

SS 09/04/22 (X1)

19.0

D35527

Door Prop



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Door Prop

batch:

32644

SS 09/04/22 (X1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT LH DOOR HINGE KIT

Job Number: 45532

Part Number: D130780011

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

D36221

Ball Stud



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Ball Stud

batch: 46451

SS 09/04/22 (X1)

21.0

D38201

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Bracket

batch: 45732

SS 09/04/22 (X1)

22.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Nut

batch: 109840

SS 09/04/22 (X1)

23.0

NAS1149D0563J

A-96050516 ✓

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

batch: M-110523

SS 09/04/22 (X1)

24.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

SS 09/04/23 (X1)

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D130-780-011

Location:

PPP Rev: Draft

SS 09/04/23 (X1)

26.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/04/24

Job Completion



MF 09-04-24

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



## 5.0 PARTS LIST

-041	-042	-043	-044	-011	-013	Part Number	Description
X						D130-780-041	SPACEPOD™ LH, EC 130 B4
	X					D130-780-042	SPACEPOD™ RH, EC 130 B4
1		X				D130-780-043	DOOR ASSEMBLY, LH
	1		X			D130-780-044	DOOR ASSEMBLY, RH
1				X		D130-780-011	AFT LH DOOR HINGE KIT
1	1				X	D130-780-013	SWITCH RELOCATION KIT
2	2					D3815-041	WEB ASSEMBLY
						D2464-0360	NEOPRENE SEAL
		1	1			D2589	KEYS, KEY CHAIN
1	1					D3837-1	DECAL
1	1					D3015-3	LOCK NUT
		1				D3186-3	SPACEPOD™ DOOR, LH
			1			D3186-4	SPACEPOD™ DOOR, RH
1						D3798-041	FLOOR
	1					D3798-042	FLOOR
1						D3188-5	SPACEPOD™ BODY
	1					D3188-6	SPACEPOD™ BODY
1	1					D3547-1	BRACKET
1	1					D3550-1	STRUT
		1	1			D3552-7	GAS SPRING
1	1					D3554-7	BALL STUD
4	4					AN3-3A	BOLT
4	4					AN3-6A	BOLT
2	2					AN3-10A	BOLT
1	1					AN5-5A	BOLT
38	38					AN525-10R7	SCREW
8	8					AN526C832R14	SCREW
7	7					MS24694S67	SCREW
1	1					MS24694S69	SCREW
		2	2			MS27039-0811	SCREW
8	8					A3235-020-935	WASHER
8	8					NAS1149D0363J	WASHER
16	16					NAS1149D0332J	WASHER
		4	4			NAS1149DN832J	WASHER
3	3					NAS1149D0563J	WASHER
		2	2			NAS1515H3	NYLON WASHER
		2	2			MS21042L08	NUT
16	16					MS21042L3	NUT (or MS21042-3)
1	1					MS21042L5	NUT
10	10					AKS7-1032-130	INSERT
28**	28**					AKS7-1032-130	INSERT
					2	D3819-1	MALE SPADE CONNECTOR
					2	D3597-1	FEMALE SPADE CONNECTOR

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Revision: A

Date: 08.10.07

165532

-041	-042	-043	-044	-011	-013	Part Number	Description
					1	D3598-2-096	EXPANDABLE SLEEVE
					24	D3599-1	TIE-WRAP
					24	D3600-1	TIE-WRAP MOUNT
					24 FT	M22759/41-22-9	WIRE
		1*	1*			D2464-1250	NEOPRENE SEAL
1**		1*				D3837-3	DECAL
	1**		1*			D3837-4	DECAL
		2*	2*			D2586	LATCH
		2*	2*			D2585	MOUNTING CHANNEL
		2*	2*			D2621	LATCH PLATE
		2*	2*			MS27039-1-15	SCREW
		2*	2*			NAS1149D0363J	WASHER
		2*	2*			MS21042L3	NUT (or MS21042-3)
		1*	1*			D2857-1	HINGE BRACKET
		1*	1*			D2857-2	HINGE BRACKET
		2*	2*			D2228	BACKING PLATE
		8*	8*			AN526C832R10	SCREW
		8*	8*			NAS1149DN832J	WASHER
		8*	8*			MS21042L08	NUT
		1*	1*			D3557-1	BRACKET
		2*	2*			D2228	BACKING PLATE
		1*	1*			D3554-7	BALL STUD
		1*	1*			NAS1149D0563J	WASHER
		1*	1*			D3015-3	LOCK NUT
		2*	2*			AN526C832R14	SCREW
		2*	2*			AN526C832R10	SCREW
		4*	4*			NAS1149DN832J	WASHER
		4*	4*			MS21042L08	NUT
2**	2**					D2237	STRIKER PLATE
4**	4**					MS20426AD4-5	RIVET
2**	2**					D3538-1	HINGE BRACKET
2**	2**					D2179	HINGE BRACKET PLATE
4**	4**					AN526C832R24	SCREW
4**	4**					NAS1149DN832J	WASHER
4**	4**					MS21042L08	NUT
				1		D3813-041	HINGE ASSEMBLY, UPPER DOOR
				1		D3813-043	HINGE ASSEMBLY, LOWER DOOR
				2***		D3518-3	ROD END
				2***		NAS509-6	NUT
				1		D3814-1	HINGE, UPPER AIRFRAME
				1		D3814-3	HINGE, LOWER AIRFRAME

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Revision: A

Date: 08.10.07

NO

EST 32

-041	-042	-043	-044	-011	-013	Part Number	Description
				2		D3816-1	SPACER
				4		D3816-3	SPACER
				1		D3817-041	ANCHOR PLATE
				2		AN3-5A	BOLT
				3		AN3-7A	BOLT
				2		AN310-4	CASTLE NUT
				2		AN4-17	BOLT
				2		AN970-4	WASHER
				5		MS21042L3	NUT
				2		MS24665-212	COTTER PIN
				3		MS24694S46	SCREW
				8		NAS1149D0363J	WASHER
				2		NAS1149D0463J	WASHER
				1		D3552-7	GAS SPRING
				2		D3622-1	BALL STUD
				1		D3820-1	DOOR SUPPORT
				2		MS21042L5	NUT
				2		NAS1149D0563J	WASHER

\* Pre-installed on D3186-3/-4 Spacepod™ Door

\*\* Pre-installed on D3188-5/-6 Spacepod™

\*\*\* Pre-installed on D3813-041/-043 Hinge Assemblies

SHOP COPY

RETURN TO

ENGINEERING

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Revision: **A**

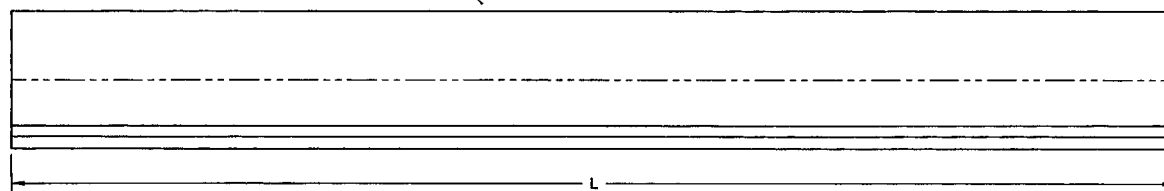
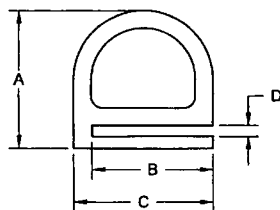
Date: 08/10/07

45532

# SPECIFICATION CONTROL DRAWING

REFERENCE ONLY

45532



**D3892-X SEAL**

DART P/N	A	B	C	D	L	DUROMETER	MATERIAL	SUPPLIER	SUPPLIER P/N
D3892-1	0.594 (19/32)	0.516 (33/64)	0.594 (19/32)	0.047 (3/64)	5.00	60	BLACK BUNA-N	SPAENAU	825-221

~~12/20/11~~

RELEASED  
01/23/12

## NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.03 lbs

REV.	DESCRIPTION	BY	DATE
A	NEW ISSUE		09.01.26
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.01.26		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3892  
REV. A  
SHEET 1 OF 1  
TITLE SEAL  
SCALE NTS

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